REMARKS

This Amendment is in response to the Office action (Paper No. 20080421) mailed on 29 August 2008. Re-examination and reconsideration are respectfully requested.

Listing of The Claims

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Status of The Claims

Claims 1 through 37 are pending in the application.

Amendment of The Claims

Claims 34 through 37 are amended in response to the Examiner's rejection.

Issues Raised by Paper No.20080421

Claim Rejections - 35 U.S.C. §101

Claims 34 - 37 are rejected under 35 U.S.C. §101,becase the claimed invention is directed to non-statutory subject matter. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form

the basis of statutory subject matter under 35 U.S.C. 101.

Claims 34 through 37 and paragraph [0291] are amended to response the Examiner's rejection to claims 34 through 37 under 35 U.S.C. §101.

The Examiner rejected claims 34 through 37 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter by stating that carrier waves and infrared microwaves are non-statutory subject matter. The applicant notices that only paragraph [0291] states the claimed storage device and thus further amended paragraph [0291] in accordance with the Examiner's rejection as follows:

> "**[0291]** The present invention can be realized as computer-executable instructions in computer-readable media. The computer-readable media includes all possible kinds of media in which computer-readable data [[is]] may be stored or ~~included or can~~ written and may include any type of data that can be read by a computer or a processing unit. The computer-readable media include for example and is not limited to, storage media, such as magnetic storage media (*e.g.*, ROMs, floppy disks, hard disks, and the like), optical reading media (*e.g.*, CD-ROMs (compact disc-read-only ~~memory~~ memories), DVDs (digital versatile discs), re-writable versions of the optical discs, and the like), hybrid magnetic optical disks, organic disks, system ~~memory~~ memories(read-only ~~memory~~ memories, random access ~~memory~~ memories), non-volatile memory such as flash memory or any other volatile or non-volatile memory, and other semiconductor [[media]] devices, electronic [[media]] devices, electromagnetic [[media]] devices and infrared [[media]] devices. The data may be transmitted [[via a]] over communication ~~medium~~ paths through propagation of ~~such as~~ carrier waves (*e.g.*, transmission via the Internet or another computers net). The transmission paths ~~of a communication medium~~ generally ~~embodies~~ carry computer-

> readable instructions, data structures, program modules or other data in a modulated signal such as the carrier waves or other ~~transportable mechanism~~ modes of signal transmission including [[any]] information delivery [[media]]. Computer-readable media may also be transmitted ~~via such as~~ over a wireless [[media]] signals such as radio frequency, infrared waves and microwave[[s]] carriers of information and data signals, and wired media such as a fixed wire[[d]] network. Also, the computer-readable media can store computer-readable codes that are distributed [[in]] among computers connected via a network. The computer readable medium also includes cooperating or interconnected computer readable media that are in loaded in the processing system or are distributed among multiple processing systems that may be local or remote to the processing system. The present invention can include the computer-readable medium having stored thereon a data structure ~~including~~ that includes a plurality of fields containing data representing the techniques of the present invention."

The Examiner is respectfully asked to reconsider claims 34 through 37 based on the amended paragraph [0291].

The Examiner asserts that since paragraph [0291] of the specification indicates that the computer program/instructions may be transmitted by carrier waves or infrared waves or by microwaves, claims 34 through 37 may be non-statutory under 35 U.S.C. §101.

MPEP §2106.01 states that:

> "Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit

the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, **a claimed computer-readable medium encoded with a computer program** is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and **is thus statutory**. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. (Emphasis Added)"

Therefore, it is possible for a computer program to be considered statutory subject matter, but it apparently must be embodied in a "physical thing". Taking the Examiner's comments into consideration, paragraph [0291] has been amended to clarify the reference to "carrier waves" and "infrared waves and microwave carriers of information and data signals".

The applicant further amended claims 34 through 37 in order to define an apparatus comprising multiple modules executing different performance. Such formation of claims are named as "hardware claims", which are among the findings of facts by the Federal Circuit reported in *TIVO, INC., v. ECHOSTAR COMMUNICATIONS CORPORATION, decided on 31st January 2008.* In the decision on appeal of *TIVO, INC., v. ECHOSTAR COMMUNICATIONS CORPORATION* decided on 31st January 2008, claim 32 of U.S. Patent No. 6, 233, 389 is accepted as a hardware claim which defining an apparatus comprising multiple modules for performing

different performances.

Four discrete examples of hardware and software claims were considered by the U.S. Court of Appeals for the Federal Circuit in its opinion for *TiVO, Inc., v. Echostar Communications Corporation, et al.*, 516 F.3d 1290, 1310, 85 U.S.P.Q. 2d 1801 (Fed. Cir., 31st January 2008). No suggestion was tendered either by the U.S. Court of Appeals for the Federal Circuit, or by either party to the appeal, that any of these four claims were invalid or unpatentable under 35 U.S.C. §101. These four exemplars of valid process and apparatus hardware and software claims 1, 31, 32 and 61, are:

HARDWARE CLAIM — Claim 1 — Process —

Independent apparatus claim 1 was found by the Federal Circuit to be a "process hardware" claim, and the Court affirmed the finding of literal infringement by the trial court. The Federal Circuit raised no issue about the patentability of claim 1 under 35 U.S.C. §101. For the convenience of the Examiner, claim 1 is reproduced here:

> 1. A process for the simultaneous storage and play back of multimedia data, comprising the steps of:
>
> accepting television (TV) broadcast signals, wherein said TV signals are based on a multitude of standards, including, but not

limited to, National Television Standards Committee (NTSC) broadcast, PAL broadcast, satellite transmission, DSS, DBS, or ATSC;

tuning said TV signals to a specific program;

providing at least one Input Section, wherein said Input Section converts said specific program to an Moving Pictures Experts Group (MPEG) formatted stream for internal transfer and manipulation;

providing a Media Switch, wherein said Media Switch parses said MPEG stream, said MPEG stream is separated into its video and audio components;

storing said video and audio components on a storage device;

providing at least one Output Section, wherein said Output Section extracts said video and audio components from said storage device;

wherein said Output Section assembles said video and audio components into an MPEG stream;

wherein said Output Section sends said MPEG stream to a decoder;

wherein said decoder converts said MPEG stream into TV output signals;

wherein said decoder delivers said TV output signals to a TV receiver; and

accepting control commands from a user, wherein said control commands are sent through the system and affect the flow of said MPEG stream.

HARDWARE CLAIMS Claim 32 — Apparatus —

Independent apparatus claim 32 was found by the Federal Circuit to be an "apparatus hardware" claim, but the Court reversed the finding of literal infringement by the trial court, due to the Circuit Court's finding of a failure in the proof of literal infringement. The Federal Circuit raised no issue about the patentability of claim 32 under 35 U.S.C. §101. For the convenience of the Examiner, claim 32 is reproduced here:

32. An apparatus for the simultaneous storage and play back of multimedia data, comprising:

a module for accepting television (TV) broadcast signals, wherein said TV signals are based on a multitude of standards,

including, but not limited to, National Television Standards Committee (NTSC) broadcast, PAL broadcast, satellite transmission, DSS, DBS, or ATSC;

a module for tuning said TV signals to a specific program;

at least one Input Section, wherein said Input Section converts said specific program to an Moving Pictures Experts Group (MPEG) formatted stream for internal transfer and manipulation;

a Media Switch, wherein said Media Switch parses said MPEG stream, said MPEG stream is separated into its video and audio components;

a module for storing said video and audio components on a storage device;

at least one Output Section, wherein said Output Section extracts said video and audio components from said storage device;

wherein said Output Section assembles said video and audio components into an MPEG stream;

wherein said Output Section sends said MPEG stream to a decoder;

wherein said decoder converts said MPEG stream into TV

output signals;

wherein said decoder delivers said TV output signals to a TV receiver; and

accepting control commands from a user, wherein said control commands are sent through the system and affect the flow of said MPEG stream.

SOFTWARE CLAIMS — Claim 31 — Process —

Independent apparatus claim 31 was found by the Federal Circuit to be a "process software" claim, and the Court affirmed the finding of literal infringement by the trial court. The Federal Circuit raised no issue about the patentability of claim 31 under 35 U.S.C. §101. For the convenience of the Examiner, claim 31 is reproduced here:

31. A process for the simultaneous storage and play back of multimedia data, comprising the steps of:

providing a physical data source, wherein said physical data source accepts broadcast data from an input device, parses video and audio data from said broadcast data, and temporarily stores said video and audio data;

providing a source object, wherein said source object

extracts video and audio data from said physical data source;

providing a transform object, wherein said transform object stores and retrieves data streams onto a storage device;

wherein said source object obtains a buffer from said transform object, said source object converts video data into data streams and fills said buffer with said streams;

wherein said source object is automatically flow controlled by said transform object;

providing a sink object, wherein said sink object obtains data stream buffers from said transform object and outputs said streams to a video and audio decoder;

wherein said decoder converts said streams into display signals and sends said signals to a display;

wherein said sink object is automatically flow controlled by said transform object;

providing a control object, wherein said control object receives commands from a user, said commands control the flow of the broadcast data through the system; and

wherein said control object sends flow command events to said source, transform, and sink objects.

SOFTWARE CLAIMS Claim 61 — Apparatus —

Independent apparatus claim 61 was found by the Federal Circuit to be an "apparatus software" claim, but the Court reversed the finding of literal infringement by the trial court, due to the Circuit Court's finding of a failure in the proof of literal infringement. The Federal Circuit raised no issue about the patentability of claim 61 under 35 U.S.C. §101. For the convenience of the Examiner, claim 61 is reproduced here:

> 61. An apparatus for the simultaneous storage and play back of multimedia data, comprising:
>
> a physical data source, wherein said physical data source accepts broadcast data from an input device, parses video and audio data from said broadcast data, and temporarily stores said video and audio data;
>
> a source object, wherein said source object extracts video and audio data from said physical data source;
>
> a transform object, wherein said transform object stores and retrieves data streams onto a storage device;
>
> wherein said source object obtains a buffer from said transform object, said source object converts video data into data streams and fills said buffer with said streams;

wherein said source object is automatically flow controlled by said transform object;

a sink object, wherein said sink object obtains data stream buffers from said transform object and outputs said streams to a video and audio decoder;

wherein said decoder converts said streams into display signals and sends said signals to a display;

wherein said sink object is automatically flow controlled by said transform object;

a control object, wherein said control object receives commands from a user, said commands control the flow of the broadcast data through the system; and

wherein said control object sends flow command events to said source, transform, and sink objects.

The applicant respectfully amended the applicant's claims 34 through 37 to the hardware claims as defined by U.S. Patent No. 6, 233, 389's claim 32 and respectfully asks the Examiner reconsider the amended claims 34 through 37. The applicant's amended claims 34 through 37 are hardware claims comparable in format to hardware claim 32 in the TiVo decision.

Since this does not entail the addition of new matter to the specification, entry of this amendment to the specification is respectfully requested.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Amendment.

Respectfully submitted,

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